Microsoft® Windows® 2000

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Understanding the Windows 2000 Domain Model

Novell's marketing of NDS for NT 2.0 leads companies to believe that they will have to retain their existing Windows NT 4.0 domain structures when they deploy Windows 2000 and that Windows 2000's Active Directory only adds complexity to domain management. In reality, Active Directory enables most companies to have far fewer and much larger domains. Active Directory also enables increased security and makes domains simpler than ever to manage. And, Microsoft believes that there are better ways to improve domain management today – and prepare for Windows 2000 – than to install NDS for NT 2.0.

ACTIVE DIRECTORY ENABLES SIMPLIFIED DOMAIN MANAGEMENT AND INCREASED SECURITY

Companies that deploy Windows NT Server 4.0 frequently chose to use many different domains to organize their user and machine objects. The Windows NT Server 4.0 Security Account Manager (SAM) limits the number of objects (e.g. users, machines and groups) per domain to 40,000 and provides very basic support for delegation of privileges. Companies that have many users, machines or groups, or that want to enable delegation of privileges, frequently choose to use multiple domains to address these issues. Along with more domains, however, comes overhead such as the need to manage many trust relationships between domains.

In contrast, Windows 2000 uses Active Directory instead of the SAM to store information about users, machines and groups. Active Directory is highly scalable, organizes objects hierarchically to match organizational structures, enables delegation of authority and manages trust relationships automatically. Using Active Directory instead of the SAM enables many important benefits:

- **Windows 2000 domains can contain millions of users and machines** because Active Directory uses a scalable, indexed repository technology. For practical purposes, domain size limits are removed.
- **Centralized administrators can delegate administrative rights** to teams, departments, sites, etc. by taking advantage of the hierarchical structure used by Active Directory. This enables companies to balance the advantages of centralized control with the efficiencies of autonomy.
- **Domain boundaries are not dictated by network bandwidth limitations**. Active Directory replicates information between sites via highly optimized techniques – such as data compression and automatic use of bridgehead servers – to ensure that replication traffic between sites and across slower network links is performed efficiently. This makes it more practical than ever before to include sites linked by slower-speed networking connections into domains.
- **Active Directory delivers high availability and fault-tolerance** by using multi-master replication techniques to maintain full read/write replicas of each object in the domain available on all domain controllers, even when domains span multiple sites. This prevents sites from being unable to function if network connections are lost.

With Windows 2000 Server and Active Directory, the Windows NT Server 4.0 domain model is enhanced significantly – which should result in most company's having fewer and larger domains that offer increased security and are simpler for administrators to manage.

In addition, there are ways – **today** – for companies to **simplify domain management**, **enable privilege delegation** and **prepare for Windows 2000** without needing to detour their Windows plans with
NDS for NT 2.0. More information, visit:
http://www.microsoft.com/ntserver/nts/exec/vendors/NTSisv.asp

MORE INFORMATION

Visit http://www.microsoft.com/ntserver/windowsnt5/default.asp for more information on Windows 2000 and Windows 2000's Active Directory service.

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